

## **RAW SEQUENCE LISTING**

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Application Serial Number: 10/809,953A  
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IFW16

## RAW SEQUENCE LISTING

DATE: 08/01/2006

PATENT APPLICATION: US/10/809,953A

TIME: 09:46:26

Input Set : A:\1021565-000155.ST25.txt

Output Set: N:\CRF4\08012006\J809953A.raw

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3 <110> APPLICANT: Van Mellaert, Herman
4     Botterman, Johan
5     Van Rie, Jeroen
6     Joos, Henk
8 <120> TITLE OF INVENTION: RECOMBINANT PLANT EXPRESSING NON-COMPETITIVELY
BINDING Bt
9     INSECTICIDAL CRYSTAL PROTEINS
11 <130> FILE REFERENCE: 1021565-000155
13 <140> CURRENT APPLICATION NUMBER: 10/809,953A
14 <141> CURRENT FILING DATE: 2004-03-26
16 <150> PRIOR APPLICATION NUMBER: 09/661,061
17 <151> PRIOR FILING DATE: 2000-09-13
19 <150> PRIOR APPLICATION NUMBER: PCT/EP/00905
20 <151> PRIOR FILING DATE: 1990-05-30
22 <150> PRIOR APPLICATION NUMBER: GB 89401499.2
23 <151> PRIOR FILING DATE: 1989-05-31
25 <160> NUMBER OF SEQ ID NOS: 10
27 <170> SOFTWARE: PatentIn version 3.3
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 12
31 <212> TYPE: DNA
32 <213> ORGANISM: Bacillus thuringiensis
34 <400> SEQUENCE: 1
35 tggccagcgc ca                                     12
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47 <210> SEQ ID NO: 3
48 <211> LENGTH: 28
49 <212> TYPE: DNA
50 <213> ORGANISM: Bacillus thuringiensis
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56 <210> SEQ ID NO: 4
57 <211> LENGTH: 34
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59 <213> ORGANISM: Bacillus thuringiensis
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65 <210> SEQ ID NO: 5
66 <211> LENGTH: 3903

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68 <213> ORGANISM: Bacillus thuringiensis
71 <220> FEATURE:
72 <221> NAME/KEY: CDS
73 <222> LOCATION: (264)..(3761)
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78 aaactagtgc aactaaatat ttttataatt acactgatta aatactttat ttttgggagt      120
80 aagatttatg ctgaaatgta ataaaattcg ttccattttc tgtattttct cataaaatgt      180
82 ttcataatgct ttaaattgta gtaaagaaaa acagtacaaa cttaaaagga ctttagtaat      240
84 ttaataaaaa aaggggatag ttt atg gaa ata aat aat caa aac caa tgt gtg      293
85                               Met Glu Ile Asn Asn Gln Asn Gln Cys Val
86                               1             5             10
88 cct tac aat tgt tta agt aat cct aag gag ata ata tta ggc gag gaa      341
89 Pro Tyr Asn Cys Leu Ser Asn Pro Lys Glu Ile Ile Leu Gly Glu Glu
90                               15             20             25
92 agg cta gaa aca ggg aat act gta gca gac att tca tta ggg ctt att      389
93 Arg Leu Glu Thr Gly Asn Thr Val Ala Asp Ile Ser Leu Gly Leu Ile
94                               30             35             40
96 aat ttt cta tat tct aat ttt gta cca gga gga gga ttt ata gta ggt      437
97 Asn Phe Leu Tyr Ser Asn Phe Val Pro Gly Gly Gly Phe Ile Val Gly
98                               45             50             55
100 tta cta gaa tta ata tgg gga ttt ata ggg cct tcg caa tgg gat att      485
101 Leu Leu Glu Leu Ile Trp Gly Phe Ile Gly Pro Ser Gln Trp Asp Ile
102                               60             65             70
104 ttt tta gct caa att gag caa ttg att agt caa aga ata gaa gaa ttt      533
105 Phe Leu Ala Gln Ile Glu Gln Leu Ile Ser Gln Arg Ile Glu Glu Phe
106 75                               80             85             90
108 gct agg aat cag gca att tca aga ttg gag ggg cta agc aat ctt tat      581
109 Ala Arg Asn Gln Ala Ile Ser Arg Leu Glu Gly Leu Ser Asn Leu Tyr
110                               95             100            105
112 aag gtc tat gtt aga gcg ttt agc gac tgg gag aaa gat cct act aat      629
113 Lys Val Tyr Val Arg Ala Phe Ser Asp Trp Glu Lys Asp Pro Thr Asn
114                               110            115            120
116 cct gct tta agg gaa gaa atg cgt ata caa ttt aat gac atg aat agt      677
117 Pro Ala Leu Arg Glu Glu Met Arg Ile Gln Phe Asn Asp Met Asn Ser
118                               125            130            135
120 gct ctc ata acg gct att cca ctt ttt aga gtt caa aat tat gaa gtt      725
121 Ala Leu Ile Thr Ala Ile Pro Leu Phe Arg Val Gln Asn Tyr Glu Val
122                               140            145            150
124 gct ctt tta tct gta tat gtt caa gcc gca aac tta cat tta tct att      773
125 Ala Leu Leu Ser Val Tyr Val Gln Ala Ala Asn Leu His Leu Ser Ile
126 155                               160            165            170
128 tta agg gat gtt tca gtt ttc gga gaa aga tgg gga tat gat aca gcg      821
129 Leu Arg Asp Val Ser Val Phe Gly Glu Arg Trp Gly Tyr Asp Thr Ala
130                               175            180            185
132 act atc aat aat cgc tat agt gat ctg act agc ctt att cat gtt tat      869
133 Thr Ile Asn Asn Arg Tyr Ser Asp Leu Thr Ser Leu Ile His Val Tyr
134                               190            195            200

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138			205					210					215				
140	ggt	cgt	ttt	ctt	agc	gat	tgg	att	gta	tat	aat	cgt	ttc	cgg	aga	caa	965
141	Gly	Arg	Phe	Leu	Ser	Asp	Trp	Ile	Val	Tyr	Asn	Arg	Phe	Arg	Arg	Gln	
142		220					225					230					
144	ttg	aca	att	tca	gta	tta	gat	att	ggt	gcg	ttt	ttt	cca	aat	tat	gat	1013
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146	235					240				245						250	
148	att	aga	aca	tat	cca	att	caa	aca	gct	act	cag	cta	acg	agg	gaa	gtc	1061
149	Ile	Arg	Thr	Tyr	Pro	Ile	Gln	Thr	Ala	Thr	Gln	Leu	Thr	Arg	Glu	Val	
150				255					260						265		
152	tat	ctg	gat	tta	cct	ttt	att	aat	caa	aat	ctt	tct	cct	gca	gca	agc	1109
153	Tyr	Leu	Asp	Leu	Pro	Phe	Ile	Asn	Gln	Asn	Leu	Ser	Pro	Ala	Ala	Ser	
154			270					275					280				
156	tat	cca	acc	ttt	tca	gct	gct	gaa	agt	gct	ata	att	aga	agt	cct	cat	1157
157	Tyr	Pro	Thr	Phe	Ser	Ala	Ala	Glu	Ser	Ala	Ile	Ile	Arg	Ser	Pro	His	
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160	tta	gta	gac	ttt	tta	aat	agc	ttt	acc	att	tat	aca	gat	agt	ctg	gca	1205
161	Leu	Val	Asp	Phe	Leu	Asn	Ser	Phe	Thr	Ile	Tyr	Thr	Asp	Ser	Leu	Ala	
162		300					305					310					
164	cgt	tat	gca	tat	tgg	gga	ggg	cac	ttg	gta	aat	tct	ttc	cgc	aca	gga	1253
165	Arg	Tyr	Ala	Tyr	Trp	Gly	Gly	His	Leu	Val	Asn	Ser	Phe	Arg	Thr	Gly	
166	315				320					325					330		
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169	Thr	Thr	Thr	Asn	Leu	Ile	Arg	Ser	Pro	Leu	Tyr	Gly	Arg	Glu	Gly	Asn	
170				335					340						345		
172	aca	gag	cgc	ccc	gta	act	att	acc	gca	tca	cct	agc	gta	cca	ata	ttt	1349
173	Thr	Glu	Arg	Pro	Val	Thr	Ile	Thr	Ala	Ser	Pro	Ser	Val	Pro	Ile	Phe	
174				350					355					360			
176	aga	aca	ctt	tca	tat	att	aca	ggc	ctt	gac	aat	tca	aat	cct	gta	gct	1397
177	Arg	Thr	Leu	Ser	Tyr	Ile	Thr	Gly	Leu	Asp	Asn	Ser	Asn	Pro	Val	Ala	
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180	gga	atc	gag	gga	gtg	gaa	ttc	caa	aat	act	ata	agt	aga	agt	atc	tat	1445
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182		380					385					390					
184	cgt	aaa	agc	ggt	cca	ata	gat	tct	ttt	agt	gaa	tta	cca	cct	caa	gat	1493
185	Arg	Lys	Ser	Gly	Pro	Ile	Asp	Ser	Phe	Ser	Glu	Leu	Pro	Pro	Gln	Asp	
186	395				400					405					410		
188	gcc	agc	gta	tct	cct	gca	att	ggg	tat	agt	cac	cgt	tta	tgc	cat	gca	1541
189	Ala	Ser	Val	Ser	Pro	Ala	Ile	Gly	Tyr	Ser	His	Arg	Leu	Cys	His	Ala	
190				415					420					425			
192	aca	ttt	tta	gaa	cgg	att	agt	gga	cca	aga	ata	gca	ggc	acc	gta	ttt	1589
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194				430					435					440			
196	tct	tgg	aca	cac	cgt	agt	gcc	agc	cct	act	aat	gaa	gta	agt	cca	tct	1637
197	Ser	Trp	Thr	His	Arg	Ser	Ala	Ser	Pro	Thr	Asn	Glu	Val	Ser	Pro	Ser	
198			445				450					455					
200	aga	att	aca	caa	att	cca	tgg	gta	aag	gcg	cat	act	ctt	gca	tct	ggt	1685

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202		460					465					470					
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205	Ala	Ser	Val	Ile	Lys	Gly	Pro	Gly	Phe	Thr	Gly	Gly	Asp	Ile	Leu	Thr	
206	475				480						485				490		
208	agg	aat	agt	atg	ggc	gag	ctg	ggg	acc	tta	cga	gta	acc	ttc	aca	gga	1781
209	Arg	Asn	Ser	Met	Gly	Glu	Leu	Gly	Thr	Leu	Arg	Val	Thr	Phe	Thr	Gly	
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212	aga	tta	cca	caa	agt	tat	tat	ata	cgt	ttc	cgt	tat	gct	tcg	gta	gca	1829
213	Arg	Leu	Pro	Gln	Ser	Tyr	Tyr	Ile	Arg	Phe	Arg	Tyr	Ala	Ser	Val	Ala	
214				510					515					520			
216	aat	agg	agt	ggt	aca	ttt	aga	tat	tca	cag	cca	cct	tcg	tat	gga	att	1877
217	Asn	Arg	Ser	Gly	Thr	Phe	Arg	Tyr	Ser	Gln	Pro	Pro	Ser	Tyr	Gly	Ile	
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221	Ser	Phe	Pro	Lys	Thr	Met	Asp	Ala	Gly	Glu	Pro	Leu	Thr	Ser	Arg	Ser	
222		540					545					550					
224	ttc	gct	cat	aca	aca	ctc	ttc	act	cca	ata	acc	ttt	tca	cga	gct	caa	1973
225	Phe	Ala	His	Thr	Thr	Leu	Phe	Thr	Pro	Ile	Thr	Phe	Ser	Arg	Ala	Gln	
226	555				560					565					570		
228	gaa	gaa	ttt	gat	cta	tac	atc	caa	tcg	ggt	gtt	tat	ata	gat	cga	att	2021
229	Glu	Glu	Phe	Asp	Leu	Tyr	Ile	Gln	Ser	Gly	Val	Tyr	Ile	Asp	Arg	Ile	
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232	gaa	ttt	ata	ccg	gtt	act	gca	aca	ttt	gag	gca	gaa	tat	gat	tta	gaa	2069
233	Glu	Phe	Ile	Pro	Val	Thr	Ala	Thr	Phe	Glu	Ala	Glu	Tyr	Asp	Leu	Glu	
234				590					595					600			
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238				605				610						615			
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241	Gly	Leu	Lys	Thr	Asp	Val	Thr	Asp	Tyr	His	Ile	Asp	Gln	Val	Ser	Asn	
242		620					625					630					
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245	Leu	Val	Ala	Cys	Leu	Ser	Asp	Glu	Phe	Cys	Leu	Asp	Glu	Lys	Arg	Glu	
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256	ggc	tgg	aga	gga	agt	acg	gat	att	act	atc	caa	gga	gga	gat	gac	gta	2357
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258			685					690					695				
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262		700					705					710					
264	cca	acg	tat	tta	tat	caa	aaa	ata	gat	gag	tcg	aaa	tta	aaa	gcc	tat	2453
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273	Ile	Tyr	Leu	Ile	Arg	Tyr	Asn	Ala	Lys	His	Glu	Ile	Val	Asn	Val	Pro	
274					750				755						760		
276	ggt	aca	gga	agt	tta	tgg	cct	ctt	tct	gta	gaa	aat	caa	att	gga	cct	2597
277	Gly	Thr	Gly	Ser	Leu	Trp	Pro	Leu	Ser	Val	Glu	Asn	Gln	Ile	Gly	Pro	
278					765				770						775		
280	tgt	gga	gaa	ccg	aat	cga	tgc	gcg	cca	cac	ctt	gaa	tgg	aat	cct	gat	2645
281	Cys	Gly	Glu	Pro	Asn	Arg	Cys	Ala	Pro	His	Leu	Glu	Trp	Asn	Pro	Asp	
282					780				785						790		
284	tta	cac	tgt	tcc	tgc	aga	gac	ggg	gaa	aaa	tgt	gca	cat	cat	tct	cat	2693
285	Leu	His	Cys	Ser	Cys	Arg	Asp	Gly	Glu	Lys	Cys	Ala	His	His	Ser	His	
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293	Leu	Gly	Val	Trp	Val	Ile	Phe	Lys	Ile	Lys	Thr	Gln	Asp	Gly	His	Ala	
294					830					835					840		
296	cga	cta	ggg	aat	cta	gag	ttt	ctc	gaa	gag	aaa	cca	tta	tta	gga	gaa	2837
297	Arg	Leu	Gly	Asn	Leu	Glu	Phe	Leu	Glu	Glu	Lys	Pro	Leu	Leu	Gly	Glu	
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302					860					865					870		
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305	Glu	Thr	Leu	Gln	Leu	Glu	Thr	Thr	Ile	Val	Tyr	Lys	Glu	Ala	Lys	Glu	
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322					940					945					950		
324	cta	tat	gat	gcg	aga	aat	att	att	aaa	aat	ggc	gat	ttc	aat	aat	ggc	3173
325	Leu	Tyr	Asp	Ala	Arg	Asn	Ile	Ile	Lys	Asn	Gly	Asp	Phe	Asn	Asn	Gly	
326	955					960					965				970		
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330						975					980				985		

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